



Rail Enhancement Fund
Project Application Form

Internal Use

20100076
DRPT Tracking #

Amended

Date: February 17, 2009

Name of Applicant (Name and Address)

Norfolk Southern Railway Company
Three Commercial Place
Norfolk, VA 23510

Applicant type:

☐ Passenger Railroad

☒ Freight Railroad

☐ Locality

☐ Business

☐ Other _____

A. Contact Information:

Responsible Person/Title: Sarah Quisenberry, Director Strategic Planning

Telephone: 757-629-2686 Fax: 757-533-4884 Email: sarah.quisenberry@nscorp.com

Project Manager/Title: Sarah Quisenberry, Director Strategic Planning

Telephone: 757-629-2686 Fax: 757-533-4884 Email: sarah.quisenberry@nscorp.com

B. Project Title: Route 460/Heartland Corridor Initiatives - *Altavista Tunnel Clearances*

D. Project Location: (City/County, Rail line, Railroad Mile Post, attach map)

~~A. Montgomery Tunnel - Montgomery County, mp N-284.6~~

B. Altavista Line Clearances - see map Exhibit II

- Mansion, Campbell County, mp V-194.4
- Leesville, Campbell County, mp V-206.3
- Huddleston, Bedford County, mp V-213.4
- Goodview, Bedford County, mp V-225.8
- Hardy, Bedford County, mp V-235.7
- 8 clearance issues, mp V-236 through V-206, Campbell & Bedford Counties

*Modified
by DRPT*

E. Owner of Property/Right-of-Way/Facility/Personal Property:

Norfolk Southern Railway Company owns the mainline track rights-of-way, tunnels, bridges, and related appurtenances. NS or an affiliate will acquire any property required.

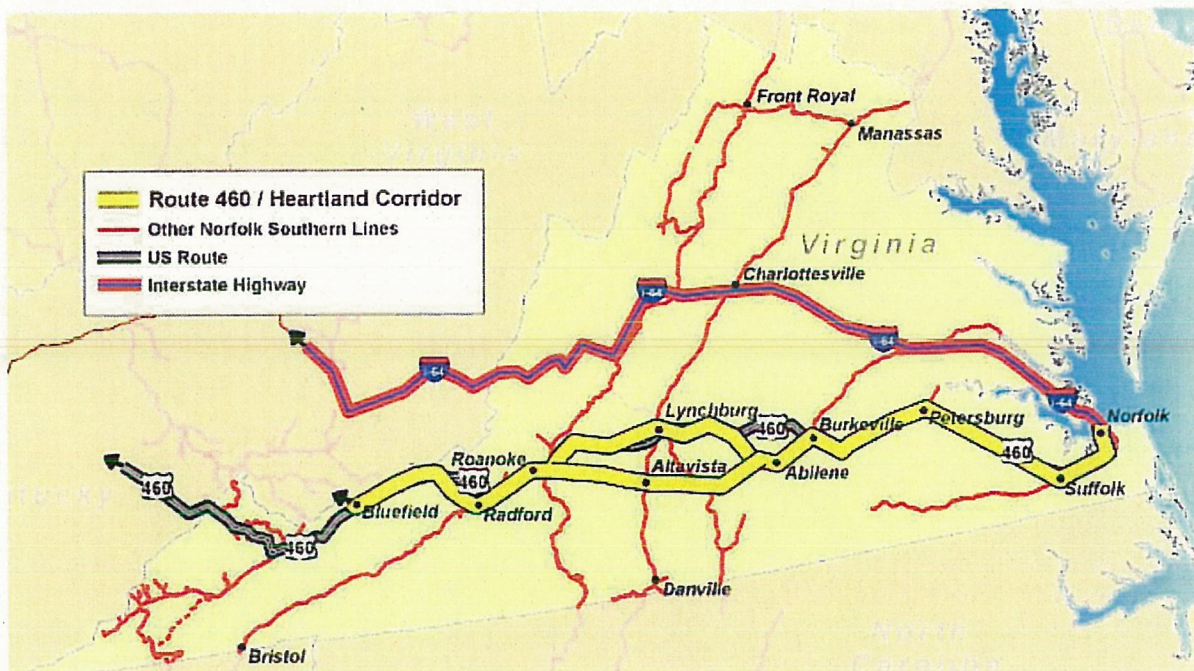
F. Responsible Party for Continuous Maintenance of Project:

Norfolk Southern Railway Company. This application is for capital costs only. NS will assume all ongoing maintenance and operating cost responsibilities and future capital costs.

G. Project Information:

1) Description of Project:

The Route 460/Heartland Corridor is comprised of the NS mainlines from the Port of Hampton Roads across the southern half of the state through Petersburg and Roanoke and on to Bluefield, roughly paralleling Route 460. Coal, intermodal and merchandise trains use the Route 460 Corridor. It is important to eliminate any bottlenecks along the route that may occur because the route is used for coal, merchandise and intermodal traffic. As the economy rebounds, traffic is projected to increase along the Route 460 corridor (intermodal, coal and merchandise). Strong freight railroads with adequate capacity enable companies in the Commonwealth of Virginia to conduct business efficiently and effectively. A strong transportation network is vital to a state's economic health and future vitality.



The following overview will discuss the Route 460/Heartland corridor starting in the east at the ports of Hampton Roads and traveling through the Commonwealth to the western border at Bluefield. The rail line from Tidewater to Burkeville is double track with directional running (trains usually run east on one track and west on the other). Traffic moving over this segment of the corridor includes the loaded unit trains of export coal traveling east to the port and unit trains of empty coal cars traveling back west to the

mines for reloading. This double track mainline is the access for intermodal traffic traveling to and from the tidewater ports, such as NIT and Maersk. The Heartland Corridor traffic (REF grant agreement 76506-1) will operate over this line. Merchandise trains also use this mainline and several customers are located along the line.

Approximately 22 miles west of Burkeville, at Abilene, the NS mainline diverges into two roughly parallel routes. Merchandise, intermodal and empty unit trains returning west (coal and grain) use the northern route, from Abilene to Lynchburg. This route is single track requiring trains to pass each other at sidings. Each time two trains pass, one has to wait – sometimes for more than an hour – for the second one to arrive at the passing point. Heartland Corridor intermodal trains (average 9,000 feet) will use this route once the Heartland Corridor tunnel clearance projects are completed. From Lynchburg to Roanoke the railroad is single track with passing sidings; both the Route 460/Heartland Corridor and I-81/Crescent Corridor use this segment of the railroad network. Both Heartland and Crescent intermodal traffic will operate on this line, in addition to the merchandise and empty unit trains operating on the line.

The southern route from Abilene is used for eastbound unit coal trains. This line is single track with few sidings. All high and wide clearances and intermodal double stack trains must use the northern route between Burkeville and Roanoke, as five tunnels and 8 other obstructions (e.g. bridges) limit the height of cars moving on the Altavista line. NS proposes to improve the tunnel and other clearances on the Altavista line in order to ensure adequate capacity for the Heartland Corridor intermodal trains, Crescent Corridor intermodal trains and export coal trains by adding flexibility to train routing options. Having the clearances to allow high and wide movements and double stack cars to use either the northern or southern route to/from Roanoke would increase capacity on the northern and southern route. An expansion of Norfolk Southern's capacity to operate freight rail transportation service would be beneficial to the public of the Commonwealth by favorably affecting economic growth, vitality, and competitiveness. An expansion of Norfolk Southern's capacity to operate freight rail transportation service would be beneficial to the public of the Commonwealth by reducing the amount of freight carried through the Commonwealth on highways and other road infrastructure.

At Roanoke the two NS mainlines come together and run west side by side. At Salem, the lines cross and the former northern route carrying intermodal (the Heartland Corridor intermodal route to Columbus, Ohio) and merchandise traffic becomes the southern route. This route is primarily double track. The former southern route carrying eastbound export coal becomes the northern route at Salem (primarily single track). West of Roanoke, the Route 460/Heartland Corridor route and the I-81/Crescent Corridor route diverge at Radford, VA with the Crescent Corridor traffic operating to and from Bristol, Knoxville and points west. Beyond this point the Route 460/Heartland Corridor is double track to the west.

Route 460/Heartland Corridor Projects	Start Year	Benefits	Cost (millions)
Montgomery Tunnel Clearance	2012-2013	Capacity, flexibility	\$10
Altavista Tunnel Clearances	2013-2016	Capacity, flexibility, shorter route	\$24

~~A. Project Montgomery Tunnel Clearance~~

~~Montgomery Tunnel is located on the N line between Roanoke and Radford. This is a double track line; however, only one main line through the tunnel is cleared. Currently double stack intermodal trains may not be operated on Main 1 through Montgomery Tunnel. Clearing both mains for the tunnel would allow for optimal flexibility in train routing. Currently trains often must wait for another train to clear before they can proceed through the tunnel. This causes delay and eliminates the ability to directionally run trains on this double track section. The estimated cost of this project is \$10 million.~~

B. Project Altavista Line Tunnel Clearances

The Altavista line is single track with few sidings. All high and wide clearances and intermodal double stack trains must use the northern route between Burkeville and Roanoke, as five tunnels and 8 other obstructions (e.g. bridges) limit the height of cars moving on the Altavista line. Clearing the tunnels and other clearance obstructions on the southern route would provide two parallel routes that would enable routing optimization. Directional running could be accomplished with the northern route used for eastbound moves and the southern route for westbound moves, or vice versa. Directional running minimizes the need for meets and passes of trains and minimizes the need for long sidings on which to accomplish the meets and passes. Some meets and passes and sidings will still be required in order to serve local customers on the lines. The estimated cost of this project is \$24 million.

2) Project Objectives:

A - Montgomery Tunnel

~~The objective of the project is to increase freight capacity by enhancing routing options and flexibility since both rail lines through the Montgomery Tunnel would be cleared.~~

B – Altavista tunnels

To increase the capacity of the Route 460/Heartland Corridor by eliminating clearance restrictions associated with five tunnels and 8 miscellaneous obstructions. High and wide and double stack intermodal could be routed over the northern or southern route if the southern route is cleared. Operations could be more fluid and flexible by enabling directional running on the two parallel routes thereby minimizing the number of meets and passes that must be arranged and slow down traffic flow. 27 miles per train could be saved by rerouting Roanoke/Greensboro trains to southern route.

3) Relationship to Other Projects under Development by Applicant or Previously Funded by this Program:

REF Grant 76506-1, Heartland Central Corridor Components, included tunnel clearances on the NS line west of Roanoke. This opens a new and shorter route from the ports of Hampton Roads to the mid-west. The Montgomery Tunnel project will enhance the prior Rail Enhancement grant by providing flexibility in routing and thereby capacity to handle future traffic growth from the ports of Hampton Roads and from Heartland Corridor and Crescent Corridor traffic initiatives.

4) Describe the Public Benefits of Project. Identify significant types of benefits and beneficiaries from this project. (See Attachment A).

A. Montgomery Tunnel

~~By removing the clearance obstructions for the second main for the tunnel, this project provides flexibility for train routing. Increased routing options reduces the potential for trains to sit on sidings waiting to queue through the cleared tunnel. This speeds train service and improves air quality and fuel conservation.~~

B. Altavista Line Tunnel Clearances

By removing clearance obstructions on the southern route of the Route 460/Heartland Corridor, this project provides flexibility for train routing and the opportunity to bi-directionally run trains (east on one route and west on the other) which will minimize the number of meets and passes. Reducing the number of meets and passes reduces the

time trains spend sitting in sidings. This speeds train service and improves air quality and fuel conservation.

A) Attachment A – Project Data Information Form – Must be completed by Applicant and submitted with this application.

H. Type of Project:

~~A. Kilby Crossovers, B. Pamplin Siding, C. Montgomery Tunnel~~ *Altavista Clearance Project*

- 1) ☐ New Construction ☒ Rehabilitation ☐ Study
- 2) ☒ Rail Infrastructure ☐ Rail Facility/Station
☐ Equipment/Rolling Stock ☐ Signals/Communication Equipment
- 3) Other _____

I. Application Scope of Work Covers:

☒ Entire Project ☐ A Phase of a Multi-Phase Project ☐ Completion Phase

J. Project Budget Summary:

Route 460/Heartland Corridor Projects:	Montgomery Tunnel	Altavista Tunnels
Preliminary Services, Engineering, or Feasibility Study	500,000	0
Environmental Evaluation	0	0
Design Engineering	1,000,000	1,800,000
Right of Way Acquisition	0	0
Construction	7,350,000	17,500,000
Construction Management	500,000	2,500,000
Lease/Acquisition of Equipment		0
Public Involvement (if applicable)		0
Other: (Contingency)	650,000	2,200,000
Subtotal Total	\$10,000,000	24,000,000
Project Total	\$34,000,000	

K. Attach detailed budget and schedule information. If the project is for final design, construction or procurement; then plans, specifications and reports to a preliminary engineering level (approximately 30%) should be provided to support the project cost and major features (if applicable). A sample budget and schedule is included in Appendix D.

L. Rail Enhancement Funds Requested in this Application: ~~\$23,800,000~~ ^{\$16,800,000}
Maximum 70% of Total Project Budget. 70%
Do not include any previous allocations or future phases.

M. Local Match Required by Applicant: ~~\$10,200,000~~ ^{\$7,200,000}
At least a minimum 30% of Total Project Budget. 30%

If Overmatch, Provide Percentage _____

1) Match breakdown by Source (Including any in-kind match)

- a. Provider of Local Match Norfolk Southern
- b. Status (confirmed/anticipated) confirmed
- c. Attach justification for value of in-kind match.

2) Other Funding Sources Beyond Match Requirement

- a. Provider of Overmatch _____
- b. Status (confirmed/anticipated) _____

Funding Allocation by Project	Montgomery Tunnel	Altavista Tunnels
Rail Enhancement Funding	\$7,000,000	\$16,800,000
Rail Enhancement Funding %	70%	70%
NS match	\$3,000,000	\$7,200,000
NS Match %	30%	30%
NS Overmatch %	0%	0%
Total	\$10,000,000	24,000,000

N. Project implementation schedule (based in months). List major milestones of the project, including environmental review and public involvement points if applicable.

A. Montgomery Tunnel:

<u>Milestone Description</u>	<u>Estimated Completion Date From Notice to Proceed</u>
○ Notice to Proceed	Start Point
○ Survey and Develop Plans	3 Months
○ Environmental Review	6 Months
○ Permitting	6 Months
○ Advertise Work	7 Months
○ Bid Work	8 Months
○ Issue Contract	10 Months
○ Construction or Project Completed	24 Months

B. Altavista Line Tunnels:

<u>Milestone Description</u>	<u>Estimated Completion Date From Notice to Proceed</u>
○ Notice to Proceed	Start Point
○ NS Contracts Engineering Services	1 Month
○ Environmental Review	3 Months
○ Permitting & VADOT Approval	12 Months
○ Property Acquisition (if required)	12 Months
○ Advertise Work	13 Months
○ Bid Work	14 Months
○ Issue Contract	16 Months
○ Construction or Project Completed	36 Months

O. Statement of how this project promotes or does not preclude dual/multi-access use.

A. Montgomery Tunnel

~~This project is on Norfolk Southern owned right-of-way; the rail line will remain an exclusive Norfolk Southern route.~~

B. Altavista Line Tunnels

This project is on Norfolk Southern owned right-of-way on which only Norfolk Southern operates; the rail line will remain an exclusive Norfolk Southern route.

P. List additional users of rail line, facility, and/or equipment:

~~A. Montgomery Tunnel~~

~~Customers using the proposed Roanoke Regional Intermodal Facility and South Central Virginia Intermodal Facility will benefit because the tunnel clearance will add capacity and flexibility for routing trains, especially double stack intermodal trains. NS will be the sole rail service provider.~~

B. Altavista Line Tunnels

The Altavista line tunnel clearances will add capacity and flexibility for routing trains, especially double stack intermodal trains. NS will be the sole rail service provider.

Q. Identify any possible environmental or other issues/concerns within the scope of this project.

~~A. Montgomery Tunnel~~

~~None are known of at this time. It is expected have a positive effect as it will enable routing options for double stack intermodal trains through Montgomery Tunnel which would reduce the need for trains to wait for other trains to clear the tunnel. This will produce fuel savings and reduction in emissions.~~

B. Altavista Tunnels

An environmental review will have to be performed to identify any impacts from construction; none are known of at this time. It is expected have a positive effect as it will enable Roanoke-Linwood double stack intermodal trains to be rerouted on the southern route which would save approximately 27 miles per trip. The shorter trip will produce a fuel savings and reduction in emissions.

Required Attachments:

Application is not complete without items 1-5 completed by the Applicant and submitted with the Application.

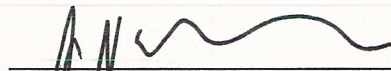
1. Attachment A – Project Data Information Form (provided)
2. Attachment B – Application Checklist (Provided)
3. Detailed cost, budget and schedule. Include preliminary engineering to 30% report, if applicable (Sample in Appendix D).
4. Certification of Match/% of Match/Documentation of Source of Match including Defined Match Source (To be provided by Applicant).
5. Certification of Additive Investment (To be provided by Applicant).
6. Statement from the Applicant/Owner of the facility that the SWAM participation goals will be achieved by the project.
7. Statement by the owner of the facility that acknowledges the Commonwealth will have a public interest in the facilities, materials, equipment and improvements funded or impacted by this project (To be provided by Applicant/Owner).

Application and Attachment Certification

To the best of my knowledge all information contained in this application and its attachments is true. The information provided to the Virginia Department of Rail and Public Transportation (DRPT) is subject to full disclosure except where protected by Virginia Code. Any additional documentation related to this application will be provided to DRPT upon request.

Authorized Signature and Title:

NORFOLK SOUTHERN RAILWAY COMPANY


Name: John H. Friedmann
Title: Vice President

Date: 1/30/2009

One signed original, twelve copies, and an electronic copy in pdf format of the completed application and required documentation must be mailed under applicant cover to:

Director
Virginia Department of Rail and Public Transportation
1313 East Main Street, Suite 300
Richmond, Virginia 23219

Rail Enhancement Fund
Project Application Form

EXHIBIT II

Attachment E
Certification Of Match

Norfolk Southern - Altavista Line Clearances

Norfolk Southern Railway Company ("Norfolk Southern") has applied to the Commonwealth of Virginia for Rail Enhancement Funds in the amount of \$16,800,000 in connection with the Norfolk Southern Altavista Line Clearance Project. As described in greater detail in Norfolk Southern's application, this project will encompass clearing the tunnels and other clearance obstructions on the route which would provide two parallel routes that would enable routing optimization. Directional running could be accomplished with the northern route used for eastbound moves and the southern route for westbound moves, or vice versa. Directional running minimizes the need for meets and passes of trains and minimizes the need for long sidings on which to accomplish the meets and passes. Some meets and passes and sidings will still be required in order to serve local customers on the lines.

As part of this application, Norfolk Southern hereby certifies that it will provide a local match equivalent to 30 percent of the estimated total project cost for which Rail Enhancement Funds are made available, or \$7,200,000. This match will be provided entirely by Norfolk Southern or one or more parents, subsidiaries or affiliates of Norfolk Southern.

NORFOLK SOUTHERN RAILWAY COMPANY

By:



Name: John H. Friedmann
Title: Vice President

Rail Enhancement Fund
Project Application Form

EXHIBIT II

Attachment F
Certification Of Additive Investment

Norfolk Southern - Altavista Line Clearances

This letter certifies that the Virginia Rail Enhancement Funds requested in the accompanying application will add to the state's rail infrastructure and will not be used to replace funds that would have otherwise been spent in the Commonwealth.

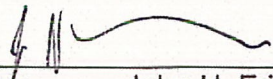
Norfolk Southern's application requests funds for clearing the tunnels and other clearance obstructions on the Altavista Line which would provide two parallel routes that would enable routing optimization. Directional running could be accomplished with the northern route used for eastbound moves and the southern route for westbound moves, or vice versa. Directional running minimizes the need for meets and passes of trains and minimizes the need for long sidings on which to accomplish the meets and passes. Some meets and passes and sidings will still be required in order to serve local customers on the lines.

Although Norfolk Southern foresees traffic growth in the corridor, internal funds will not be available to undertake the improvements to the Altavista Line for some years to come. Without Rail Enhancement Funds, this project will not be built unless there are significant changes in the traffic flows.

In sum, Norfolk Southern certifies that the Virginia Rail Enhancement Funds requested in its application will be used as part of a public-private partnership for improvements that NS would not undertake alone.

NORFOLK SOUTHERN RAILWAY COMPANY

By:



Name: John H. Friedmann
Title: Vice President
Date: 2-17-2009

Rail Enhancement Fund
Project Application Form

EXHIBIT II

Attachment G
Statement Of SWAM Participation

Norfolk Southern - Altavista Line Clearances

February 17, 2009


To Whom It May Concern:

In connection with Norfolk Southern Railway Company's Rail Enhancement Fund Application for the Altavista Line Clearance project, please accept this letter as the applicant's statement regarding small, women- and minority-owned business (SWAM) participation goals.

For project work that is not performed by Norfolk Southern's workforce, Norfolk Southern will undertake reasonable and good faith efforts to achieve the SWAM participation goal for the project through race-neutral and gender-neutral means that are lawful and non-discriminatory. We understand the project participation goal to be forty percent (40%) of the total value of contracts between Norfolk Southern and third parties for the performance of the project work. The success of Norfolk Southern's efforts will of course be impacted by the availability of qualified and willing small businesses and women- and minority-owned businesses within the market area of the project.

Thank you for considering Norfolk Southern's application.

Very truly yours,



John H. Friedmann
Vice President

Rail Enhancement Fund
Project Application Form

EXHIBIT II

Attachment D
Statement of Public Interest

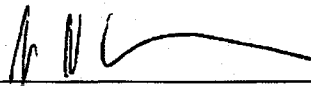
Name of Applicant and Project:
Norfolk Southern - Altavista Line Clearances

Statement from the owner of the facility that acknowledges the Commonwealth will have a Public Interest in Private Facilities impacted by this project

To Whom It May Concern:

At the appropriate time, NS will enter into an appropriate agreement to be negotiated with the Commonwealth of Virginia to protect the Commonwealth's public interest in the Altavista Line Clearances Project.

NORFOLK SOUTHERN RAILWAY COMPANY
By:



Name: John H. Friedmann
Title: Vice President



Rail Enhancement Fund
Project Application Form

Internal Use

DRPT Tracking #

EXHIBIT II
Attachment A
Project Data Information Form

Date: 1/31/2009

Name of Applicant and Project:
Norfolk Southern – Altavista Line Tunnel Clearances

General Instructions: Please complete the following forms that apply to the project application.

- For Freight Service projects, complete forms A1, A2 and A5
- For Intercity/Amtrak passenger projects, complete forms A1, A3 and A5
- For Commuter/VRE passenger projects, complete forms A1, A4 and A5
- For projects that involve benefits to both freight and passenger projects, form A1 and forms A2-A4 that apply must be completed. For each completed form A2-A4, a form A5 must be completed for each category for projects resulting in multiple project benefits.

Terms:

Project Cost and Construction period: Form A1 shall be completed with total project cost by year of expenditure with total DRPT cost identified by year of expenditure. This section must be completed for all project applications.

Demand Characteristics: This category of information relates to the additional demand for rail service (including freight and passenger) due to the project. This additional demand must be over and above baseline conditions that currently exist. The specific data to enter here defines initial demand, steady state demand, and the years until steady state demand is achieved.

Steady State Demand: This term refers to the point at which the project benefits/demand have reached a long-term, sustainable level.

Project Impact on Travel Distance: This category of information includes the distance that would be traveled by vehicle or train. All distances should be limited to miles within Virginia. The distance should relate directly to the project-impacted area.

Demand Characteristics for a 15-year Performance Period: This term refers to the project output by performance year, which will be utilized to determine that public benefits and to determine the performance requirements over the 15-year Performance Period of the Grant Agreement.

EXHIBIT II
Attachment A
Form A1 – Project Cost and Construction Period
Norfolk Southern – Altavista Line Tunnel Clearances

First Construction Year: 2013

Last Construction Year: 2016

Year	Total Project COST	Total DRPT COST
Year 1	\$2,000,000	\$1,400,000
Year 2	\$6,000,000	\$4,200,000
Year 3	\$10,000,000	\$7,000,000
Year 4	\$6,000,000	\$4,200,000
Year 5		
Total	\$24,000,000	\$16,800,000

Use Form A-5 to provide demand characteristics for the 15-Year Performance Period.

EXHIBIT II
Attachment A
Form A2 – Freight Service
Norfolk Southern – Altavista Line Tunnel Clearances

Demand Characteristics	CATEGORY	UNITS	VALUE
	Steady state demand – diversion of freight to rail (from trucks)	Carloads/Year	n/a
	First year of diversion	Carloads/Year	n/a
	Number of years until steady state	Number of Years	n/a

Project impact on Travel Distance	CATEGORY	UNITS	VALUE
	Rail miles in Virginia (Existing routing before project)	Miles	81.9
	Rail miles in Virginia (routing after project completion)	Miles	54.8
	Number of years until steady state	Number of Years	3

Conversions	CATEGORY	UNITS	VALUE
	Railcars per Train	Railcars/Trains	n/a
	Rail tons per Railcar	Tons/Railcar	n/a
	Trucks per Railcar	Trucks/Railcar	n/a

Other	CATEGORY	UNITS	VALUE
	Change in Daily Delay for Freight Trains	Railcars/Trains	n/a
	Reduction in Number of Rail At-Grade Crossings	Tons/Railcar	n/a

Use Form A-5 to provide demand characteristics for the 15-Year Performance Period.

EXHIBIT II
Attachment A
Form A5– Demand Characteristics for 15-Year Performance Period
Norfolk Southern – Altavista Line Tunnel Clearances

Performance Values to be determined as costs and benefits refined and updated as project and funding progresses.

Benefit:
27 mileage savings Roanoke to Greensboro intermodal service.

Performance Year	Performance Value *
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
Total	

For Freight Service Projects – car loads or containers per year
For Inter-City/Amtrak Passenger Projects – passengers per year
For Commuter/VRE Passenger Projects – passengers per year

Rail Enhancement Fund
Project Application Checklist

Internal Use

DRPT Tracking #

EXHIBIT II
Attachment B

Date: 1/30/2009

Name of Applicant and Project:
Norfolk Southern – Altavista Line Tunnel Clearances

Checklist for Application:

7. Project is consistent with goals of applicable adopted state, regional and/or local plans.

☒ YES ☐ NO

8. Project is an Additive Investment to Virginia.

☒ YES ☐ NO

9. Project provides for, or does not preclude, shared or dual access opportunity.

☒ YES ☐ NO

10. Applicant has provided documentation and certification of at least a minimum 30% match.

☒ YES ☐ NO

11. Applicant has provided an environmental review plan and/or public involvement plan, if applicable, and required budget for this activity as outlined in Appendix D.

☒ YES ☐ NO

12. Application is complete, including signature and specified number of hard copies and an electronic (pdf file) copy; and Applicant has reviewed the Standard Agreement as provided in Appendix C.

☒ YES ☐ NO

Rail Enhancement Fund
Project Application Form

EXHIBIT II
Attachment C

Date: 1/30/2009

Name of Applicant and Project:
Norfolk Southern – Altavista Line Tunnel Clearances

<u>Milepost</u>	<u>Obstruction</u>	<u>Improvement</u>
V-236.06	Slide fence	Modify fence
V-235.7	Hardy tunnel	Enlarge tunnel
V-230.4	SR 755 overhead Hwy	Raise bridge
V-226.0	Goodview tunnel	Enlarge tunnel
V-223.50	SR 608 overhead Hwy	Raise bridge
V-220.00	SR654 overhead Hwy	Raise bridge
V-214.8	SR 737 overhead Hwy	Raise bridge
V-213.5	Huddleston tunnel	Enlarge tunnel
V-208.4	Slide fence	Modify fence
V-206.1	Leesville tunnel	Enlarge tunnel
V-202.3	Private overhead highway	Raise bridge
V-206.09	Slide fence	Modify fence
V-194.4	Mansion tunnel	Enlarge tunnel

EXHIBIT II
Attachment C

Hardy Tunnel – milepost V-235.7
Single-width tunnel, length 760 feet
Degree of curvature 4.0 LT

Concrete lined at portals only
Superelevation 2.0"

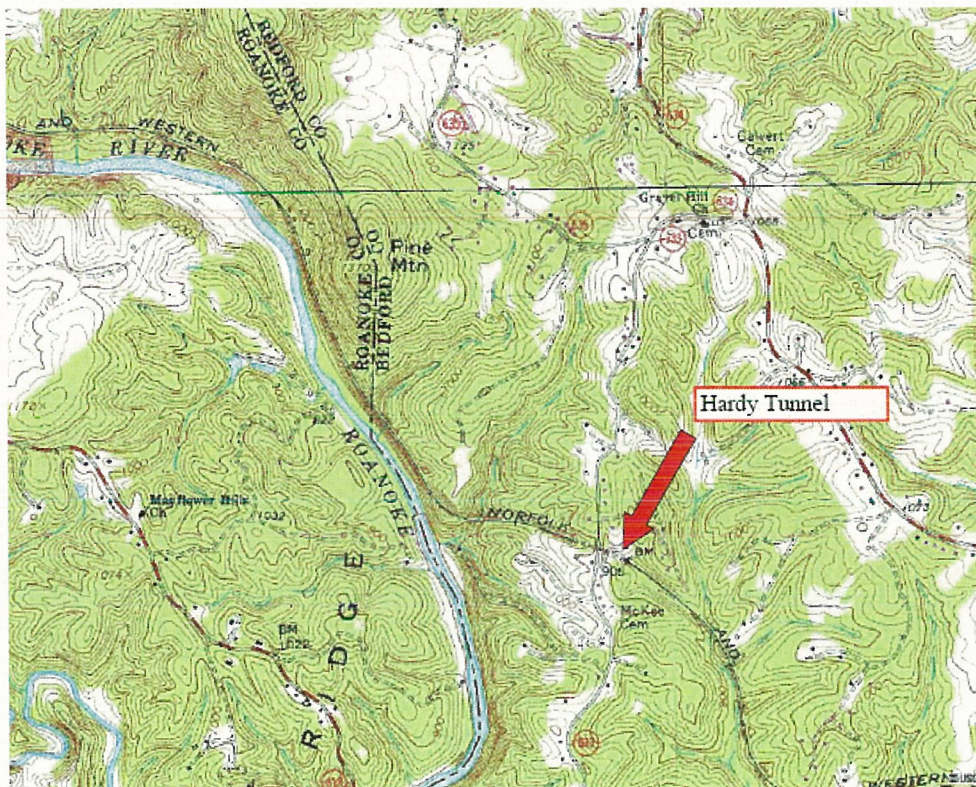


EXHIBIT II
Attachment C

Goodview Tunnel – milepost V-226

Single-width tunnel, length 989 feet

Tangent track

Concrete lined at portals only

Superelevation 0.0"

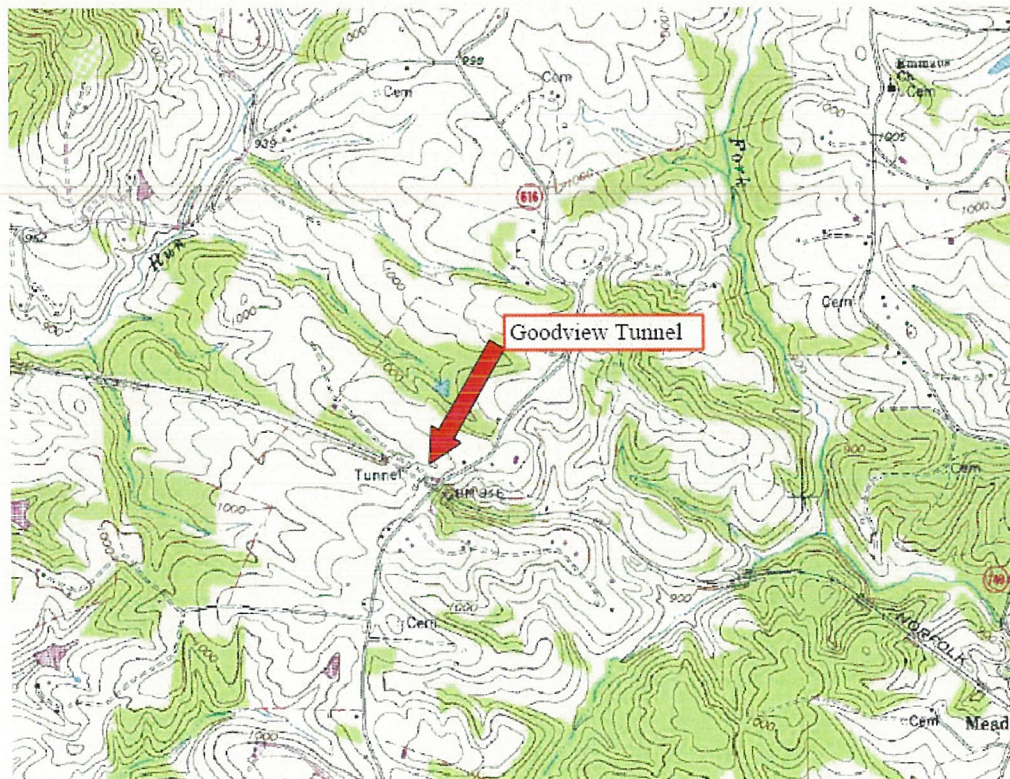


EXHIBIT II
Attachment C

Huddleston Tunnel – milepost V-213.5

Single-width tunnel, length 562 feet

Concrete lined

Degree of Curvature 5.0 RT

Superelevation 3.5"

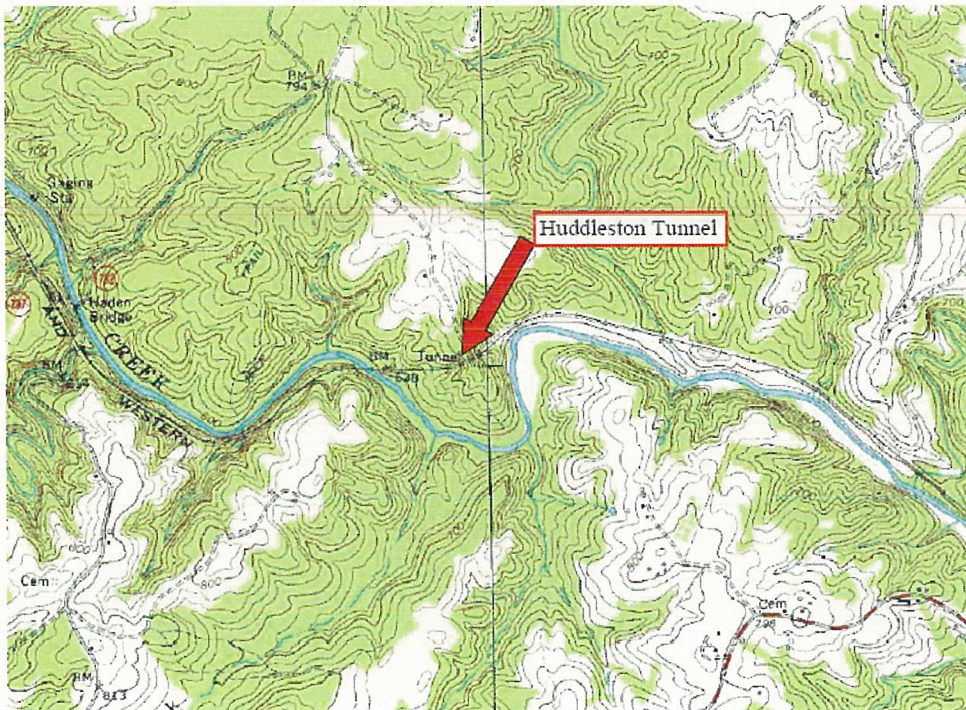


EXHIBIT II
Attachment C

Leesville Tunnel – milepost V-213.5

Single-width tunnel, length 832 feet
Tangent track

Unlined
Superelevation 0.0"

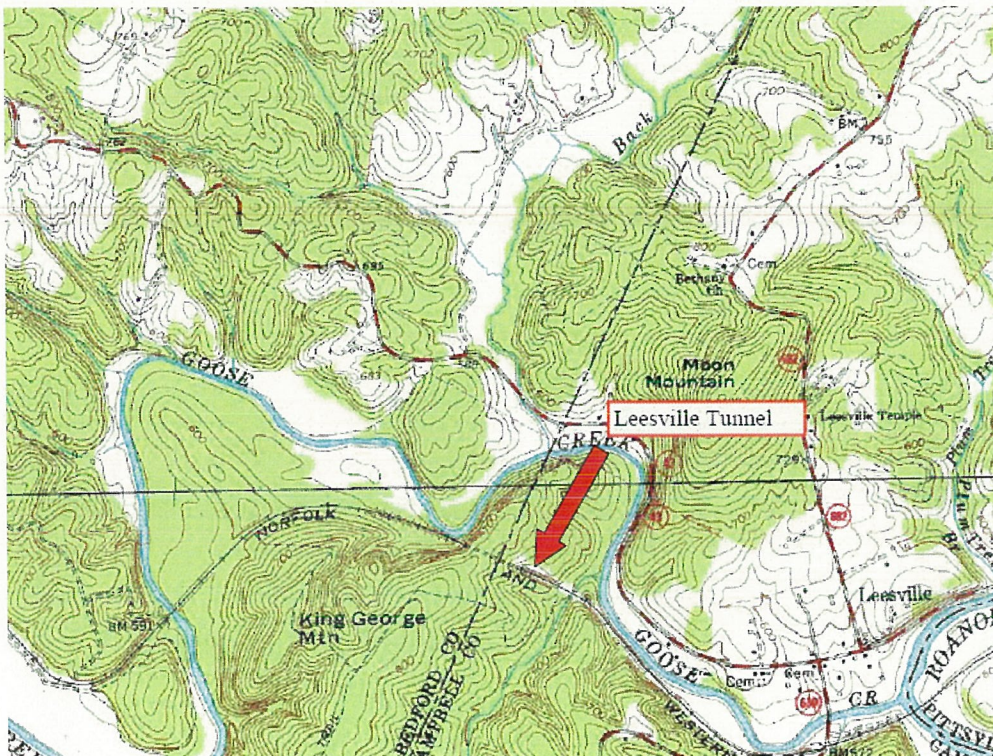


EXHIBIT II
Attachment C

Mansion Tunnel – milepost V-194.4

Single-width tunnel, length 931 feet
Degree of Curvature 3.8 RT

Concrete lined
Superelevation 2.5"

